American Farmer,

AND SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O FORTUNATOS NIMIUM SUA SI BONA NORINT
"AGRICOLAS." . . . . *Virg.*

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THE AMERICAN FARMER.

EDITED BY JOHN S. SKINNER.

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The Editor it will be seen has supplied a few columns for the Housewife's Department, in this number. That is a portion of the American Farmer to which he has always attached much importance, whatever may be the estimation in which it is held by his *Husband-men* readers.

PAGE'S SAWING AND PLANING MACHINE—We witnessed, last week, in company with several gentlemen, the operation of this machine, invented by our ingenious fellow-citizen, Mr. Page, and as far as our knowledge of mechanics extends (which is acknowledged to be but limited) we consider it well calculated to answer the purposes for which it is intended—We had designed giving it a more extended notice this week, but having failed to receive certain data which is necessary to a proper understanding of its capacity, power and value, we must defer that to a more convenient opportunity. We would, however, remark, that Messrs. Watchman & Bratt, two of our most celebrated mechanics, well known throughout the U. S. as the manufacturers of steam engines in this city, after having tested its adaptation to the purposes for which it is intended, have ordered the erection of a machine for their extensive establishment—The Superintendant at the manufacturing depot of the Baltimore & Ohio Rail Road company, after witnessing the operation of the machine, has also engaged one for the department under his control—and Mr. Selby, an enterprising farmer near Annapolis, has the sawing machine (without the planing) in operation, and in a letter to us speaks in high terms of satisfaction of its efficiency. These testimonials of its competency will have more effect on the minds of those desirous of obtaining such a machine, than the mere expression of any opinion of ours.

KENTUCKY BLUE GRASS—After we had placed in the hands of the printer the communication of the Hon. Mr. *Carmichael*, of this state, to the Editor of the Farmer's Register, we very opportunely received from *William Darlington*, Esq. of Pennsylvania, the essay which will be found in our columns this week, and which was elicited by some remarks of the Editor of the Register upon this important subject. It is an interesting paper, for which the writer will please accept our thanks; and we should at all times be happy to acknowledge him as a correspondent.

Mr. D. has given considerable attention to the subject upon which he treats, having published a "*Flora*" of this country, in which the grasses (and other plants) are all *technically* described, and a brief account given of their value and character, in domestic and rural economy. It is strictly a botanical work in its general character, but the author has added such popular remarks as might make it in some degree useful to agriculturists, and we will obtain copies for such gentlemen as may require them.

CATTLE—A communication from "E." in reply to the communication of Mr. *Carmichael*, will be found in another column—As the writer has given the initial of his name only, it is published as received—but we should have much preferred that it had been given in full, as carrying more weight than being partially anonymous—though we are aware that the author will be instantly recognized by those for whose interest he has taken up his pen,—the farmers of the Eastern Shore. It is highly gratifying to us to witness the labors of such distinguished men of our state as Mr. C. and Gen. E.,—who have received so large a share of the confidence and respect of their fellow-citizens,—giving the fruits of their talent and experience in the great cause of agriculture, for the melioration of the condition, and advancement of the best interests of their beautiful peninsula. It is an honorable pursuit, that in which they are now engaged, and the facts which will be elicited in the discussion, cannot but be beneficial to the public, and tend to an increased attention to that important branch of husbandry, the rearing of live-stock, for which we should suppose the Eastern Shore of our State might be rendered peculiarly applicable, by the extension of the root culture combined with the cultivation of such of the grasses as may have been found suitable to the position thereof.

THE TOBACCO INTEREST.—That part of the message of the Governor of Maryland, which related to the subject of Tobacco, was referred to a special committee. We find their Report in the Maryland Republican. The substance of the argumentative part of it is contained in their extract from the speech of the Hon. D. Jenifer, which we copy, together with the Resolutions, with which the Report concludes.

If those nations who have seized upon this article as a medium through which to extort large sums of money from those of their subjects who consume it, in the shape of import duties, excises, &c., would change their system, and reduce the imposts to a fair standard, there is no reason to doubt but that the extent to which its consumption would be carried, beyond what it is under the present system, would more than indemnify them for any loss they might anticipate in their revenue from the reduction of duty; and would also have the good effect of preventing or breaking up those frauds which are now practised to the extent, it is supposed, of nearly one half of the whole amount consumed in Great Britain and Ireland. Upon this branch of the subject, your committee beg leave to submit some interesting facts, which have recently been brought to public view in a speech of the Hon. D. Jenifer, one of our Representatives in Congress, delivered before the Convention of Tobacco Growers, which assembled at Washington on the 15th December last. It appears from a document then quoted, that in the years 1792 the duty on tobacco, in Ireland, was one shilling per pound, and that the consumption of that year was 1,767,591 lbs., and the amount of duty collected was £86,379 7s; the year following, 1793, the duty was reduced to 6*d* per pound, and the consumption rose at once 5,568,857 lbs., and the amount of duty collected to £139,221 8s. showing a difference in favor of low duty £52,842 1*s*; and the succeeding year the consumption was still further increased to 9,426,211 lbs., and the amount of duty to the large sum of £235,655 5*s* 6*d*. showing a still further excess of revenue over the previous year £96,433 11*s* 6*d*. The year following, 1795, the duty was increased to 8*d* per pound, and the consumption fell 7,874,409 lbs., and in the following year declined to 6,045,790 lbs., the duty collected amounted to £201,526 6*s* 8*d*. showing a declension of revenue below that of the last year the duty stood at 6*d* of £34,128 18*s* 10*d*. In the year 1798 the duty was again increased to 1*s*, and the consumption went down to 4,894,121 lbs., very little more than half what it was the last year the duty stood at 6*d*. The speech referred to further states, that in the year 1785 Mr. Jefferson, who was then in France, succeeded in getting the government of that country to relax their restriction upon American tobacco, and the consequence was that the quantity imported into France that year was 35,000 hogsheads, notwithstanding the difficulties her trade labored under at that time. The quantity which she now receives is from 6 to 7000 hogsheads.

Resolved by the General Assembly of Maryland, That the most effectual remedy for the evils the tobacco interest labors under, from the high duties imposed by Great Britain, and the monopolies of France and other nations of Europe, is to be found in the action of Congress, by countervailing duties; and that this Legislature relies on the wisdom of Congress in discriminating between those governments which have, and those which have not manifested a disposition to abandon or modify their present oppressive duties and restrictions imposed on tobacco from the United States.

Resolved, That the governor be, and he is hereby requested to transmit a copy of these resolutions to each of our senators and representatives in the Congress of the United States, and that they be requested to lay the same before their respective bodies. All of which is respectfully submitted. BENEDICT I. HEARD, Chairman.

The Hessian Fly.—Miss Margaret H. Morris of Germantown believes she has established that the ovum of the Hessian fly is deposited by the parent in the seed of the wheat, and not, as previously supposed, in the stalk or culm. She has watched the progress of the animal since June, 1836, and has satisfied herself that she has frequently seen the larva, at various stages of its progress, from the seed to between the body of the stalk and the sheath of the leaves. In the latter situation it passes into the pupa or 'flaxseed state.' According to the observations of Miss Morris, the recently hatched larva penetrates to the centre of the straw, where it may be found of a pale greenish white semi-transparent appearance, in form somewhat resembling a silk worm. From one to six of these have been found at various heights from the seed to the third joint. They would seem to enter the pupa state about the beginning of June.

This fly was not observed by Miss Morris to inhabit any other plant than wheat.

To prevent the ravages of this destroyer of the grain, it will be proper to obtain fresh seed from localities in which the fly has not made its appearance. By this means the crop of the following year will be uninjured; but in order to avoid the introduction of straggling insects of the kind from adjacent fields, it is requisite that a whole neighborhood should pesevere in this precaution for two or more years in succession.

New Steamboat Line—Grasses.

To the Editor of the American Farmer—

In the American Farmer of the 20th ult. under the head of "New Steamboat Line," you draw the attention of gentlemen in the vicinity of Stewart's Landing, and elsewhere along the Chesapeake and its tributaries, to the transportation of marketing by means of "plain cheap steamboats"—Your suggestions are well worthy of notice; and I respectfully beg leave further to enforce them by observations made some years since.

Great quantities of marketing are transported by such means from the States of Jersey and Delaware to the Philadelphia market. When on board a steamer on my way from Bordentown to Philadelphia, my attention was attracted by the quantity of fruits and vegetables on the deck of the Boat. The woman who had charge of them, in reply to my inquiries, stated that she regularly made two trips a day between the two places, and brought down with her each time a quantity equal to that she then had, which filled one hundred and fifty bushel baskets.—She was I believe merely a purchaser from the growers, and employed others in the market to sell for her. At the rate of two trips per day the quantity thus brought to market amounted to 1800 baskets of produce per week by one person from one landing only—The distance between the two places is thirty miles; but immense quantities are brought from other places, and I have noticed a small boat which plies between Salem and Philadelphia, which is, I am inclined to believe, almost wholly supported by the market business.

In the hands of industrious methodical and economical people, the production and sale of fruits, vegetables, butter and poultry, is as certain a mode of growing rich as any other system of agriculture, as is evidenced by the increasing prosperity of the people of several counties in Pennsylvania and Jersey, where time and attention have been particularly devoted to that object. The returns are always in ready money, and made weekly, instead, as in the case of large and distant farms, at the end of the year only.

Other advantages will attend the increase of market farms: Along the Bay is much land little suited for wheat or grass, but admirably adapted for fruits and vegetables—On such land the former will scarce pay the expense of cultivation, whilst the latter will yield large and profitable returns. The land will be divided among a number of small proprietors, be better cultivated, and as population increases, the lands must improve in value.

The markets of Baltimore, now good, ought in time to become the best in the world. I know of no part of the earth, so well adapted from its position, to afford the epicure all the gratification the palate can desire. The waters of the Bay and its tributaries furnish wild fowl, fish and shell fish in abundance and of excellent quality, some of them widely and most justly celebrated for flavor and delicacy; the land, game of various kinds; and where duly assisted by skill and industry, vegetables and fruits equal to those of any other markets—the more distant regions of Maryland, Pennsylvania and Virginia, beef and mutton equal to any in America, together with a fair supply of excellent venison. Luxuries which this country does not yield, can be had from abroad on reasonable terms. "With all appliances and means to boot," what more can a luxurious mortal require, than the markets of Baltimore might supply?

A word more: The article of butter should not be forgotten—I do not know how far the market of Baltimore may be considered as well supplied with good butter; but there need be no deficiency either in quality or quantity—Much clayey land now lies neglected, within a few miles of the city, which, if properly cultivated, would yield most admirable crops of hay and pasturage, for which it seems better adapted than for winter grain; and I venture to predict, though at the hazard of being thought a visionary, that in time a large portion of that to which I allude, and which now appears little better than a waste, will become a fine pastural district: it is abundantly supplied with springs, and clear running streams, is high and healthy, and well adapted to feeding cattle, as the winters are somewhat shorter than in more elevated districts in the interior, without being affected by a much greater degree of heat in summer. But before my prediction can be fulfilled, much more attention must be paid to the cultivation of the grasses. Clover is admitted to be indispensable for the improvement of land, where the supply of manure is not ample; but clover alone is not sufficient for such land, and no where can it alone make a permanent pasture—a variety of grass seeds should be sown on the same land, some of which grow early, others late, by which means a more certain and uniform supply of food can be obtained, than by sowing one or two sorts only. I therefore venture to recommend as great a variety as can be readily obtained, having due regard to the character of the soil. Lands intended for pasturage, should be put in good condition, and then laid down with Red and White Clover, Timothy, Orchard Grass, Red Top, and any other grass seeds which may be thought desirable. Orchard Grass is extremely valuable for pasturage: it is one of the first to shoot forth, and the last to cease growing. My limited experience leads me to believe that it should be sowed early in the spring, as I have uniformly found it to succeed better than in the autumn, though it does tolerably well, if sowed in August—not however so well as Timothy sowed at the same time. In March, 1839, I sowed it on wheat ground, and just before harvest pulled several blades, which had attained the length of 22 inches. In 1840, the yield of Orchard grass and Clover hay, (the latter being a volunteer crop,) was estimated at two tons per acre. A beginner will find orchard grass seed an expensive item; but as it costs little to raise, every farmer should have an acre or more, according to his wants, on good ground, and kept for seed. It is gathered and cleaned at as little expense of labor, as any grass with which I am acquainted.

I find my pen has insensibly strayed from one thing to another; and I fancy your readers may exclaim, Apropos! talking of steamboats reminds one of grass! but as it all tends one way, I trust my wandering will be taken as an evidence of the interest I take in agricultural matters, and not as indicating want of method. T. W. M.

Timothy—Orchard Grass.

To the Editor of the American Farmer:

Dear Sir,—I have just finished perusing your last interesting and highly valuable journal. Its contents as usual are varied and full of information to the agriculturist.

Your remarks upon "timothy" are such as should bring that neglected and most excellent of the grasses before the agricultural community in a light to claim their more earnest attention. I hope I shall be excused for reverting to this subject again, and I do so, not so much for the correction of an erroneous impression which may be taken from those remarks especially contained in the P. S. with regard to the time of cutting, as to bring in competition with it another one of the valuable grasses, I think equally desirable, profitable and more neglected.

Timothy, like all other grasses, has its partialities and peculiarities, as it regards soil, situation and the time of cutting for the purpose of curing for hay.—It delights in the rich and moist soils of the low lands—clays and heavy loams—but will grow luxuriantly upon uplands that have much tenacity in the soils, and are strong, rich and clean; in which instance the hay when cured is much to be preferred, not only on account of the more perfect secretions of the nutritive juices, but from its perfection in curing. Upon the uplands, unless topdressed every year or two, it runs out and requires resetting sooner than upon the low lands.—In the low lands, the native or wild grasses soon mingle with it, and unless well and thickly set, crowd it out sooner or later. But sown in either place, being cut in seed, the curing and gathering is attended with the great advantage of scattering a multiplicity of seed, which, protected by the aftermath on good soil, amounts to a resetting—and thus a meadow well prepared and attended to afterwards, frequently lasts for half a century, asking but to be relieved of its annual rich vestment.

Its peculiar advantages over other grasses for hay, seem to consist in its greater nutricious qualities preserved and concentrated in the stalk after the ripening of its seed;

The quantity and value of the seed which may or has been gathered from an acre without detriment to the crop for hay;

The time of curing, not interfering with the harvesting of the small grain;

And that it will be the most profitable upon those portions of wet low lands not so well adapted for other crops and often useless.

I presume one principal reason for its not being found more frequently clothing the uplands of our farms is, that those lands are better adapted to other crops.

We frequently hear of the failure of this crop at the outset, and the poor seedsman blamed; but I apprehend the cause lies at the door much oftener of him who sows than him who sells. Really it would seem as if some persons expect a crop by dipping their finger in the seed bag and pointing at the field. When sown alone (I mean with other grass seed) one peck is little enough for each acre, and more will not be amiss—for nature will not remain naked, and if you will not give her an opportunity of clothing herself with the rich verdure of nutricious grass, she will put on that of weeds. Sow it early too, that the roots may strike deep before the frost, and that you may see better where to scatter a little compost on those places or spots that the best sower may miss. But I am running from my subject, which, as I observed, was to suggest another, if not as a substitute, at least a place beside of this grass of grasses.

The Dactylis glomerata of the Botanist—the American cock's foot or Orchard grass, has long been before the agriculturist, and that too under the recommendations of the first agriculturists of this country and England. Col. Powell, of Penn. in communications to the old American Farmer gives it a most eminent character. Mr. Coke, of Holkham, England, also speaks in high terms of it—and all who have given it a fair trial acknowledge its merits—and my own reasons for mentioning it beside of timothy, are, that it is better adapted for the *generality* of arable lands—cares not so much about situation whether high or low, sunshine or shade—and if not so fine for hay, (saleable) it is earlier, and later for pasture—more abundant in aftermath—of quicker growth—more abiding—and can better resist a drought—is far preferable as a partner with clover, (as it ripens about the same time,) abounds in seed—and taken altogether, will afford a longer bite for the fine Durhams than any other, as well as more durable. Thus in summing up its good qualities so hastily, I hope it may not the less obtain the attention of him who is about setting a meadow or pasture lot.

To bring the latter to perfection, the quantity of seed should not be withheld—at least two bushels per acre should be scattered when alone, and about one half that quantity when with other grass seed—and when intended for hay should be cut early.

In the experiments instituted under the directions of the Duke of Bedford, at Woburn, to ascertain the comparative product and value of grasses, when cut in flower or in seed for hay, I find the proportions as follows:

Phleum pratense—timothy—gave of nutritive matter in one acre 1595 lbs. cut in flower, and 3669 lbs. when cut in seed—which is as 10 to 23 in favor of cutting when ripe.

Dactylis glomerata—orchard grass—gave 1089 lbs. when cut in flower, and 1451 lbs. when cut in seed—which is as 5 to 7 in favor of cutting when in seed.

More anon. H.

On Cattle.

To the Editor of the American Farmer:

Having observed in your last number of the "Farmer" an essay from Wm. Carmichael, Esq. on the subject of cattle, and believing that in that essay he advances and inculcates an erroneous opinion, well calculated to retard the progress of improvement in this valuable animal, I am induced to offer some reflections thereon.

Your correspondent is an old and practical farmer of some thirty years experience and practice, and the columns of the "Farmer" as well as many other papers, have afforded for many years ample evidence of his zeal in the cause of agriculture, his laudable fondness for the subject, as well as his general practical intelligence.—His opinions, therefore, in general, are entitled to much weight, and when authoritative opinions emanate gravely from a source of this kind, and have a wide spread circulation, if they happen to be erroneous, they have upon the unreflecting and inexperienced, a most dangerous influence. He has fallen, I take it, into a serious error when he gravely adjudges the preference "in favor of a New England over an Old England bull," and I should think it probable, notwithstanding the want of information upon the subject of his Connecticut visitor, that he could not go into any of the New England States to any noted breeder of good cattle and buy what is termed a country bull calf at any price.—They are not now in the hands of such men, and they are all breeding from improved cattle sprung from recent importations of Devons, Durhams, Ayreshire or Hereford cattle. It has long been believed and maintained, that the old stock of New England (I will not miscall them the "native" stock), are the descendants of imported Devon cattle. This has been inferred from

their general resemblance in color and points, and although there is no degeneracy in size, they are not regarded by Mr. Hurlbert, Mr. Jacques and other scientific breeders as comparable to the English Devons at this time—because no doubt of the superior care with which they have been bred in the old country, and from this cause only. Mr. Jacques, by the bye, is at the present time experimenting to see whether by scientific crossing he cannot make up a breed of his own, and so far he appears satisfied with his prospective success. Timothy Pickering was the only intelligent New Englander that I recollect to have seen maintain the superiority of the native cattle as he called them, over the recent importations, and in a long controversy upon this subject, he was fairly driven from his ground by a Pennsylvania farmer.

It is very true that in New England as well as elsewhere in the country we occasionally find an extraordinary milker of the old stock, whose pedigree cannot be traced to any recent importation, (although her appearance generally indicates the race she sprung from) but it would be very extraordinary if this were not the case, when the great disparity in numbers known to exist between the cows whose pedigrees are known, and those which are not known, is taken into the account. But all the cattle of the country, be it remembered, are descended from cattle imported at some period or other from either England, France, or Holland. There is scarcely a substantial farmer on this Shore whose cattle are not already improved by crosses in some degree of the importations made here within the last fifty years. There have not been many direct importers on this shore—none that I recollect except Col. Lloyd, Gen. Cadwallader, the elder Wm. De Courcey, Mr. Dickinson, of Caroline, and occasionally a few milch cows, into the old seaport town of Chester. But the late Wm. Helmsley, and the late Gov. Wright bred carefully and judiciously from imported cattle, and had greatly the best herds in their dairy on the Shore. Col. Lloyd ruined his herd of cattle by breeding for many years from the Bakewells, (a race known to be fit for nothing but the butcher) and he never succeeded in after *crosses* in breeding this bad blood out. Mr. Bordley's cattle which Mr. C. so much commends, it appears were obtained from Mr. Calvert, no doubt before he ruined his stock by the introduction of Bakewells into it. —But Mr. Bordley's cattle, to my eye, bear evident marks of their Teeswater origin, and resemble precisely the descendants which I have seen from the importation of Mr. Porter, of Delaware, as they do very much the Durhams of the present day, and in nothing so much as their color. Mr. Bordley was an able agriculturist, one of the most intelligent of the country in his day; but I should infer that he fell into an error when from their *color* only, he *conjectured*, they had descended from the cattle which Lord Anson saw on the Island of Tinian, because no notice is taken in any of the various English works that I have seen, in which the origin of their valuable races of cattle is traced out, or the slightest mention made of Lord Anson's importation of cattle. Their herd book runs back, if I recollect right, far beyond the date of Lord Anson's voyage round the world.

The white color, with red or dark ears, although a color not unfrequently found in the Durhams and some other races, is an objectionable one to some farmers, believing it to be tender in cold climates, and they desire to get rid of it. It is believed to repel heat whilst the darker colors absorb it, and according to my experience it is true, for at the end of summer my white cattle are generally in the best condition, whilst this is not the case at the end of the winter if the animal is left unsheltered. The old Bordley cattle and the old Porter cattle were undoubtedly fine cattle, and any farmer with good pasture might be very content with a good herd of them.—But *they were imported* cattle, and never were for the *grazier* or the *butcher* since I have known them, according to my humble opinion, to be compared to the recent importations of Durhams, Devons, Ayreshires or Herefords. Then what good reason can your intelligent correspondent offer to prove, that we had better buy and breed from cattle which were imported fifty or an hundred years ago and bred from since with no care, in preference of those of the same original race bred with the utmost care and science, I am at a loss to conjecture. There has been no scientific breeding of cattle on this shore such as you find all over England. Col. Lloyd was a man of the soundest practical sense, and one of the best farmers I ever knew; but he was a very careless or injudicious breeder. He mixed all the different races of stock brought upon his estate together, and kept nothing seperate. Merinos, he crossed on country sheep, upon these he crossed Bakewells, and on these again he crossed South Downs—ultimately his flock comprised in the same animal all this medley of blood. His ample and fine pastures gave him good stock, but ultimately from this cause, both his cattle and sheep fell into disrepute, and no breeder sought stock cattle or sheep from Wye. He had in fact at the time of his death no distinct breed of cattle or sheep on his whole estate. The *first* cross between two distinct races of animals will most probably give you valuable stock for the butcher, but when the breeder comes to breed further together these crossed animals, they seldom fail to "breed back" as it is termed to their worst ancestors, and sad disappointment is the inevitable consequence. I shall again hereafter refer to Col. Lloyd's short horn Durhams, and undertake to correct your correspondent in another particular about them.

We have, by recent importations, all the valuable varieties of stock for which England is so justly famed all over the world, and the difference generally in the style of breeding between our countrymen and the English is, that the former are apt to mix up every variety together and expect by *accident* to get something better than the originals—whilst the latter breed strictly and closely from the *same race*, only offering crosses from different families or herds.—The former sometimes crosses till he ruins his stock, has no distinct race, and then condemns it.—The latter by his manner of breeding prevents his stock from deteriorating, if he does not improve it.—Which of these breeders should we buy from? You may ride for days and weeks together in England, and you will not see a mixed herd of cattle, or flock of sheep, or an individual of this description, and you will very rarely indeed, see a single indifferent animal—they are all good or fair.—But at the same time you will be forcibly struck with the *pleasing fact*, that among their great numbers, you will see *nothing superior either in form or size* to some of the carefully bred animals of the same races raised in this country, and treated as well as good stock should be.

The advantages to the farmer affected in England by scientific and improved breeding, are, to produce an animal of less offal, carrying more weight within the same outlines, early maturity and greater aptitude, from the quality of the bone, to fat.—You see in all their publications the Englishman proudly boasting of, and setting forth the fact in round numbers, that the average weight of their cattle and sheep sold in Smithfield and other great markets is annually and steadily on the increase, and the American grazier will perhaps be astonished to learn that their prize stall fed bullocks hardly ever live to see the end of their fourth year; whilst three fourths of the Durhams, Devons and Herefords sold in their markets, do not reach the end of their third year. Behold, Mr. Editor, the great advantages to the breeder and grazier afforded by these *quick returns* and this great *economy of feed!* Similar results, as Mr. Turner and other intelligent butchers know, are beginning to appear in our own markets, whenever the improved stock comes to the shambles.

Your correspondent, Mr. C. has wisely indicated to the farmers of the Eastern Shore, that in consequence of the quantity of breadstuffs thrown into Baltimore by the works of internal improvement, that we must go at something else than raising breadstuffs for market; no proposition is more sound and true than this, and I have long ago foreseen and maintained it; but in my next number I will undertake to shew that this is nearly physically impossible in the present temper of the people of the Shore, and that we cannot succeed, until we first provide means of transporting our marketing to market, before the marketing itself is provided. Upon the subject of which end we are to begin at to reach success in this desirable object in introducing new objects of culture and new sources of profit to Eastern Shore farmers, we shall perhaps be more widely apart than we are on the subject of breeding stock. But if unfortunately we should not succeed to convince each other in our collision of opinion and argument, we may possibly sufficiently raise the curtain over our *benighted* Shore, to let in the light from some other quarter. E.

Poplar Grove, Feb. 5, 1841.

[We hope some of our experienced farmers who have given particular attention to the dairy, will give their views upon the matter of enquiry by our enterprizing young friend—Mr. Beltzhoover of this city (whose beautiful and extensive herd of Short horns, by the bye, are worth a long journey to behold) could no doubt give a satisfactory answer to the enquiry, by publishing an account of his method of feeding.]

BEET ROOTS—BUTTER.

To the Editor of the American Farmer:

Dear Sir,—Being possessed of a small dairy farm and a small herd of milch (only 4) cows, my attention for the last two years has been particularly called to their care. The want of experience in agriculture has led me to resort to the different agricultural journals of the day for information, and from the perusal of them I have derived great pleasure and satisfaction, more particularly noticing those articles referring to the dairy and dairy farming. I have frequently been surprised by the accounts of the great yield of milk and butter from individual cows—for instance, a short horn belonging to Mr. Wolbert, Philadelphia, gives daily twenty-seven quarts of rich milk upon *ordinary* feed, from which 14¼ lbs. of butter were made in a week. A cow belonging to Mr. Gowan, of Germantown, gave an average of more than twenty-eight quarts of milk per day for a week.—And the interesting accounts of the Rev. Mr. Colman, of Mass. of the *cream pot* breed.

I have no such instances to record, although in comparing with the generality of cattle around me, I stand pretty well, and although contented on reference to my dairy account, yet I am not satisfied. But in order to improve and know the facts, I register the weekly churnings from my four cows, and find from January, 1840, to January, 1841, they have produced me 562 lbs. of butter. I mention it here in hopes some one may be induced to follow my example. Each cow in my opinion ought to furnish 200 lbs. of butter in 12 months —and I shall not think I have profitable cows unless they do it. By care and attention to their comfort and quality of food, my cows have improved, and as they are still young, I think with the same attention they will continue to do so, and eventually I shall obtain my limit.

The object, however, of this communication is to elicit more particular information with regard to the effects of the beet root as an article of food to cows when the desideratum is butter. The frequent laudatory communications I have read as to its adaptation for cattle food, has induced me to follow the crowd and cultivate both the mangold wurzel and sugar beet. During the winter of 1839, I fed from both kinds, and observed then, after a few weeks feeding, the effects upon the cows and milk which I have repeatedly noticed since, and that is, (when constantly fed with them an *obvious decrease in the quantity of butter*, although the secretions of milk were frequently greater, and *a powerful action upon the kidneys* of the cows.)

These results so different from those assertions of more experienced farmers than myself, have led me, nevertheless, to continue my observations from time to time, but with the same results—and I now have come to the conclusion that where the object is the quantity of butter, they do not answer so well as cobmeal—but when milk or beef is the object, they are all that is said of them.

My system of feeding, when with beets, was to give each cow a peck night and morning, filling the rack before her with clover hay—continuing it for sometimes two weeks and never less than one.

Then I have changed to cut straw, mixed up with one peck of brown stuff to each cow, with hay in the rack night and morning.

Then again I have tried a peck of beets with about two quarts of brown stuff sprinkled over them, night and morning, with hay as before.

And lastly, I have given a quart of cobmeal mixed with an half bushel of cut clover hay, or corn blades sufficiently moistened, night and morning. This last feed I think is preferable, besides having good effects upon the flavor and color of the butter.

The brown stuff above mentioned is an offal of the millers —rather better than bran, although not as good as ship stuff, and costs me from thirteen to eighteen cents per bushel. The cornmeal costs me a fip per bushel to grind.

Without entering into further detail or enlarging upon the subject, I hope the facts here stated may attract the attention of some one of your numerous correspondents, who will communicate his experience and opinion upon the subject, keeping in view the article Butter.

Respectfully, your obt. servt. F. H.

February 12, 1841.

FINE MUTTON.—About the finest lot of sheep we have ever seen, was exhibited on Tuesday last by Messrs. Sterling Thomas and J. M. Turner, and the mouth of many an epicure *watered* when he thought of the delicacy these gentlemen had prepared for their palates. The nett weight of eight of these sheep is as follows:—167, 166½, 162, 157, 156, 150½, 145, 143½—averaging 156 lbs. One imported ewe 137½; one only a year old, 123 lbs. They are all of the full bred Leicester, and were raised by Major Philip Reybold, of Newcastle county, Deleware.—*Baltimore Sun.*

Grasses.

WESTCHESTER, Pa., Feb. 8, 1841.

J. S. Skinner, Esq.—Dear Sir—In the American Farmer of the 29th January, I observe an interesting notice of the "*Kentucky Blue Grass*," so called; and among other remarks, a desire is expressed, by the Editor of the Farmer's Register, that a more definite *nomenclature* might be furnished of the several grasses which are best known, and most important, to the Agriculturist. It is no easy matter to collect all the local popular names of plants, and apply them accurately to the species intended. Nothing but a residence in the various districts of our country could enable any one to gather them all, and furnish a precise synonymy. Every neighborhood, almost, has its *own names*, for plants that are familiarly known; and unfortunately, many of them become transposed, or misapplied, so that the objects, meant to be designated, cannot always be ascertained without an examination of specimens. As, however, it is a favorite pursuit with me, I will endeavor, with your permission, to give a hasty sketch of the *synonymy* of those grasses which are most interesting to the Agriculturists of the United States. A *scientific description* of them would be too voluminous for the present occasion; and moreover, such description may be found in any of the *Floras* already published. I will content myself with giving the *Botanical names*, and annexing the most usual *popular names*; by which means the greater portion of the grasses known to our Agriculturists, may be determined with accuracy.

Botanical names.

1. POA PRATENSIS, *L.*—This is the plant erroneously called "*Blue Grass*," in *Kentucky*. The English call it "*smooth stalked Meadow Grass*." In *Pennsylvania*, and most of the other States, it is known by the names of "*Green Grass*," "*Spear Grass*," and "*Meadow Grass*."
2. POA COMPRESSA, *L.*—This is most generally called "*Blue Grass*," but is often called "*Wire Grass*," and is probably the "*wire grass*" of *Virginia*. The English call it "*flat-stemmed Meadow Grass*."
3. PHLEUM PRATENSE, *L.*—In *Pennsylvania*, and to the South and West, this is known by the name of "*Timothy*"; but in *New York*, and throughout *New England*, it is called "*Herd's Grass*." The English call it "*Cat's Tail Grass*."
4. AGROSTIS VULGARIS, *L.*—This is the "*Herd's Grass*" of *Pennsylvania*, and probably of the Southern and Western States, as far as it is known. It is also known in Pennsylvania by the name of "*Red Top*." It is called "*Fine Bent Grass*," by the English; and a coarser species, nearly allied to this, is the celebrated "*Fiorin Grass*" of *Ireland*.
5. DACTYLIS GLOMERATA, *L.*, commonly called "*Orchard Grass*," in the United States. It is the "*Rough Cock's foot Grass*" of the English.
6. FESTUCA PRATENSIS, *L.*—This, though a valuable grass, seems not to have acquired a distinct popular name in our country. In *England* it is called "*Meadow Fescue Grass*."
7. LOLIUM PERENNE, *L.*, commonly called "*Ray Grass*" or "*Rye Grass*."
8. AVENA ELATIOR, *L.*—Called "*Tall Oat Grass*" by the English; it has been partially cultivated, in this country, under the name of "*Grass of the Andes*."
9. ANTHOXANTHUM ODORATUM, *L.*—Called "*Sweet-scented Vernal Grass*," by the English: remarkable for its fragrance, when cut and partly dry.

The above-named Grasses are more or less known, and esteemed, in the meadows and pastures of *Pennsylvania*; and it is remarkable that they are all believed to be *introduced* plants. Some of them are thoroughly *naturalized*; while others require to be *sown*, like cultivated grains, in order to insure a full crop. The following Grasses, though of comparatively little value, may be enumerated for the sake of giving their popular names:—

Botanical names.

10. TRIPSACUM DACTYLOIDES, *L.*—This has been somewhat noted, under the name of "*Gama Grass*," and "*Sesame Grass*"; but it never can compete with our better grasses, in good arable or pasture lands. It is too coarse and hard.
11. TRITICUM REPENS, *L.*—Called "*Couch Grass*," and "*Quitch Grass*," by the English. A pernicious foreigner, which is difficult to subdue, when once fully naturalized.
12. HOLCUS LANATUS, *L.*—Called "*Feather Grass*," and "*White Timothy*" - a naturalized foreigner, of little value in our meadows.
13. ELEUSINE INDICA, *Lam.*—Known by the name of "*Dog's Tail Grass*," and sometimes by those of "*Wire Grass*," and "*Crab Grass*." It is common in lanes and woodyards; but is seldom seen in meadows or pastures, in *Pennsylvania*.
14. DIGITARIA SANGUINALIS, *Scop.*—This is commonly called "*Finger Grass*," and "*Crab Grass*," or "*Crop Grass*." It is rather troublesome in our gardens and corn-fields; and is said to be particularly annoying to the Southern planters.
15. SETARIA GLAUCA, *Beauv.*—Known by the name of "*Fox tail*"—a worthless grass, generally abundant in wheat stubble, after harvest.
16. BROMUS SECALINUS, *L.*—Commonly called "*Cheat*," in Pennsylvania; and in the Northern States, "*Chess*." A well known intruder in wheat fields, and vulgarly supposed to be degenerate, or transmuted wheat.

The foregoing are the principal Grasses which occur to me, as being familiarly known to our Agriculturists, either on account of their value, or as unwelcome intruders.

The remarks of Mr. *Stevenson*, respecting the *Poa pratensis*, or "Kentucky Blue Grass," entirely coincide with my own observations and experience. It is decidedly the most valuable of the Gramineous plants, in our *pastures*. It delights in rich calcareous and argillaceous soils; in which situations the numerous, linear, radical leaves, are often near two feet in length, and of the most luxuriant verdure. In poor, sandy, or slaty soils, however, it deteriorates so much, that it would scarcely be recognized as the same plant. I have never known it to be cultivated in Pennsylvania; nor do we find it necessary to sow the seed, where the soil is favorable. In such soils, it *comes in*, as the farmers term it—*i. e.* it supercedes the other grasses. As it is unnecessary to sow it in a *rich* soil, so would it be labor lost to sow it in a *poor* one.—The only way, therefore, to have the benefit of this admirable grass, is first to *prepare the land for its reception*. If the soil be not naturally favorable—that is, if it does not consist of an adequate proportion of calcareous and aluminous earths—I should consider it a laborious undertaking to prepare it for a full crop of this grass; but whenever there is a good stiff loam, I have no doubt that a judicious application of lime and manure will facilitate, and speedily insure, the introduction of the plant.

My remarks have been extended so unexpectedly, that I must conclude abruptly—not, however, without the expression of my admiration of your efforts in the glorious cause of Agriculture. W. D.

From the Farmer's Register.

REMARKS ON GRENSWARD, ORCHARD GRASS, AND OTHER GRASSES.

Since I became a farmer, my observation has brought me to the conclusion, that many lands on the Eastern Shore were well adapted to grazing. The diminution of our black population, by the purchases of the south-western speculators, and the fear of being sold, which has occasioned many a poor fellow to fly to the free states, has produced with us a serious want of labor, which, as far as it has been tried, has not been well supplied by the Germans who have come into this part of the country. Before they suit us, and we suit them, we must come down a little more to the practical habits of liberty and equality. My views have led me to inquire into the different species of grass which grow in the different regions of our extensive country; and I was much pleased with the paper of Mr. Stevenson on the blue grass of Kentucky, of which I had heard, but of which I had very imperfect information. Mr. Stevenson suggests that the greensward grass, or yard grass of Virginia, is the blue grass of Kentucky. In the same situations, we have the same grass. By referring to the 7th volume of the Farmer's Register, page 20, some account will be found of the Pennsylvania green grass, which I have no doubt is the blue grass of Kentucky, and the greensward of Virginia and Maryland. As some of your readers may not find it convenient to turn to the volume, which is now before me, I will give concisely the statement, premising that General Evans, from whom I obtained the information, is an old farmer, and very intelligent and observant. He stated that he well remembered when what we call blue grass in Maryland, rooted out their red clover, which is now succeeded by green grass. They esteem it their best grazing, and cut it for hay, though it does not afford so abundant a crop as orchard grass or timothy. It is a hardy plant, and I saw it in luxuriant growth in the month of November, after the heavy drought of 1838, and I am inclined to think it will resist the frost as well as orchard grass. I entertain no doubt, but the green grass, on General Evans' farm, was the result of lime and putrescent manure. Certain sections of Chester county abound in lime-stone, but on his farm there was none, and there was much sand in the soil, mixed with slate. I had a lot which I improved well seven years ago with marl and putrescent manures, which I have once since dressed with some manure from my stables and cow yard. It was sown in orchard grass. I have taken a crop of hay from it every year, and sometimes two. The orchard grass is running out in part of it, and it is succeeded by green grass.

I concur with Mr. Stevenson, if the lands of Virginia be well improved by marl and putrescent manure, and I add those of Maryland, they will produce what is called green grass in Pennsylvania, and blue grass in Kentucky. I believe they will require neither sowing or setting. I rely upon fact, and leave the causes to philosophers and geologists." "*Felix qui rerum potuit cognoscere causas.*" General Evans saw the appearance of green grass in his fields, which drove out the fibrous blue grass, and no seed were sown. None was sown in my lot, and, I infer none on Mr. Ruffin's fields.* My speculation is, that where a great alteration occurs in the soil, whether from natural or artificial causes, a modification takes place in some productions of the earth. In support of this, I will state another fact. When my father built his house, where I now reside, more than sixty years ago, his good taste, contrary to the usages of the times, induced him to spare a contiguous wood. To improve the vegetation, I have carried some marl on it, and wherever it has been spread, white clover has sprung up so thick as to expel the sour grasses of the forest. I cannot believe that the seed was carried there by the birds of the air or the winds of heaven, and exposed to heat, cold, and moisture, retained their vegetative power till called into action by the marl.

Mr. Stevenson supposes, that the Kentuckians would be willing to swap their "devil's bit" for Virginia blue grass. I do not know how the proposal will be accepted in Virginia, but I would not agree to it on the part of Maryland. Our blue grass, though a sore pest in our wheat and corn fields, affords good grazing in lack of better. Though the devil's bit is a hard name, I will agree on the part of Maryland to take it in full exchange of St. John's wort, Richardson pink, spear plantain, and a few Canada thistles.

I apprehend the great fertility of Kentucky is founded in its calcareous soil. Lime corrects acidity, and, according to Mr. Ruffin's theory, gives permanency to putrescent manures. The falling of the leaves, and the decaying vegetables in combination with the lime, make rich beds of the manure for ages, whilst undisturbed by the axe or mattock, and when cleared of the underwood, the beautiful blue grass sprang up. Nature has done for Kentucky, what industry has done for Pennsylvania; and which it can do for Virginia and Maryland: and perhaps, in time to come, some erratic Kentuckian may find in Maryland, fields of grass that will remind him of "the glorious pastures" of the Elkhorn Paradise.

Since I wrote the above, I have received the American Farmer of the 30th ultimo, which contains an inquiry from the Kentucky Farmer, in relation to orchard grass, and an answer from the Cincinnati Republican; some parts of which, do not concur with my experience and observation. Orchard grass to me is an important crop; I gather neither blades or tops, and cut no other hay—it constitutes the rack food for my carriage and saddle horses, and for my farm horses when they are at work. I feed my calves on it in the winter, and my oxen when I can afford it.

I esteem a strong clay the best soil for orchard grass, so level as to retain the rain which falls, without receiving it from the adjacent lands. The drought of 1838 was abiding and severe, and the part of the lot which I have mentioned, where the orchard grass has been succeeded by green grass, was of lighter texture than the rest. The crop on the whole lot was diminished in 1839, but on the strong clay it recovered last year, and I cut a good crop. I sow in March or September, as suits convenience, and have never failed since I sowed seed. None can be depended upon, except the plant be perfectly ripe, and I apprehend the failure of vegetation and the tufting of the plants, are mainly owing to imperfect seed, or sparse sowing. Two and a half bushels to the acre is not too

*This inference is correct.—ED. F. R.

much; I prefer three. Those who sell have strong temptation to gather immature seed; when the plant is ripe, the hay is of no value, and the after-math much impaired. Orchard grass for hay, ought to be cut and secured when it gets into full bloom. If the weather be fine, it may be cut in the morning, and by the method directed in the 1st volume of the Farmer's Register, page 162, (which I pursue,) put into cocks in the evening, when it will be safe, and may be drawn in at pleasure. The only loss it will sustain, is by absorption at the bottom, if the cock is suffered to remain out a long time. I have never grazed my orchard grass in the spring, but freely after my hay is drawn in till hard frost, removing the hoofs when the ground is saturated by rain; and I have full evidence then of its great value, in rich milk and fine yellow sweet butter. I heard a gentleman say, in whom I have full reliance, that from the first and second crop weighed in the field, after it was cured, he got six tons to the acre. I esteem two tons and a half a good first crop, and do not cut a second if my first be sufficient for my consumption.

The inquiry about orchard grass having come from Kentucky, I have made this addition to my communication, as a small return for Mr. Stevenson's valuable and instructive paper, on the blue grass of Kentucky.

WM. CARMICHAEL.

Wye, Queen Ann's county, E. S. Md., Jan. 6th, 1841.

THE CULINARY GARDEN.

ON MANURES AND THEIR APPLICATION.

Manures are to be applied either as simples or compounds; but the latter method is certainly the most eligible. For certain it is, that if they have not undergone a proper fermentation, their effects are, giving a rank and disagreeable flavour to fruits and vegetables; and, if an immoderate quantity be applied, of producing a considerable degree of unwholesomeness, and tainting the juices of all plants.

A mixture of stable-dung, sea-weed, lime, and vegetable mould, which has lain in a heap for three or four months, and has been two or three times turned during that period, will make an excellent manure for most kinds of garden-land. Also, cow-dung, hog-dung, and sheep-dung, mixed with soot, or with wood-ashes. Pigeon-dung and vegetable mound, well mixed, will also make an excellent manure for heavy land; or even for lighter soils, provided the pigeon-dung be used sparingly.

Neat's dung and hog-dung, slightly fermented, are very fit and rich manures for light, hot soils. For those of a dry, absorbent nature, none answer better, or last longer; by reason that they retain moisture for a greater length of time, and also ferment more slowly than other dungs.

Pigeon-dung, lime, soot, ashes, &c. should never be applied as simples; the quantity required being comparatively small, and the regular distribution of them difficult, without the admixture of other matter. But these should generally be applied in compost of good earth, turf, or sward, or of cow, or other dung of a cool nature; applying them in quantity according to the cold, or the hot nature, of the soil to be manured; allowing the compost a sufficient time to incorporate, and mixing it thoroughly.

Marl is a good manure for almost any soil; and it may be applied as a simple, with as much propriety as any of the kinds of cattle-dung, or even of vegetable earth. The kind called shell-marl is much to be preferred, and should be freely applied to strong lands, but more sparingly to light; the loamy kind being best adapted to light lands.

Stable-dung, if used as a simple, should not be applied in too rank a state, nor should it be much fermented. It should generally lie in a heap for four or five weeks; during which time it should be turned over once or twice. A ton of it in this state is worth three that has been used in the hot-bed, and is a year old. This manure, and indeed dung of any kind, when applied as a simple, should never be carried from the heap to the ground, till it is to be digged in; as, by exposure to the air, its virtues evaporate, and it is the less effectual.

The necessity of the instant application of sea-weed, after landing, if used as a simple, is ever greater than the above; as it instantly corrupts, and its juices flow downwards, and are lost. If this manure be used as a compound, the heap in which it is compounded should be more frequently turned on its account; that none of the juices may be lost, but that the other part of the compost may absorb them.

Horse-dung, and the dung of sheep, deer, and of rabbits, are most eligible for cold, wet soils; and all these, or any of these in compost with lime, will be found beneficial. For such soils also, a compost of coal-ashes, pigeon-dung, and lime; or of wood-ashes, whin-ashes, fern-ashes, and stable-dung; or of deer-dung, rabbit-dung, soot, and burnt sward, will make a good manure.

Manures being valuable in proportion to the salts and the oils they contain, are to be applied in quantity according to their quality. Hence the dung of pigeons should be used in much smaller proportion than that of horses, it containing a greater quantity of volatile salts; and so the ashes of vegetables containing a portion of fixed alkaline salts, being more powerful, are to be applied in still smaller quantity. So also, lime, being the most powerful of the calcareous kind, should be applied, in ordinary cases, in much smaller quantity than marl.

Vegetable mould may either be used as a simple, or as a compound, and may be applied with equal propriety to all soils. None can be hurt by it in any degree, since almost every plant will grow luxuriantly in it alone, without the aid of any soil or manure whatever. It seems to be the ambrosia, and the dunghill drainings the nectar of vegetable life. The latter, however, if too freely indulged in, is rather of an intoxicating nature.

The importance and effect of manure being now generally credited and acknowledged, it would appear to be the indispensable duty of every gardener and cultivator of the earth, to be careful in the collection of it, and also to distribute it with skilful frugality. For this purpose a well, or cistern, should be contrived so as to collect the dunghill drainings; and in the application of manure of any kind, the greatest care should be taken to divide it equally, according to the quantity to be applied.

All animal substances, when properly applied, are good manures; and as animals derive their sustenance, either immediately or ultimately, from vegetables, these, when properly decomposed, become great promoters of vegetation. Hence dungs, in general, are superior to other manures; and are the more valuable in their kinds, according to the proportion of the oils they contain, which are most easily reduced, by the nitrous acid of the air, into that species of mucilage, allowed to be the essental pabulum or nutriment of plants. Our duty, therefore, is to collect these with care, and apply them with attention.

The dunghill may also be considerably increased, by throwing the haulm and leaves of all kinds of vegetables into a common heap, letting them remain till well rotted, and afterwards mixing them with lime, marl, ashes, or soot; or mixing them in the process of collection. By watering the whole frequently, with the drainings of the dunghill, the value would be greatly enhanced.

HINTS ON THE ROTATION OF CROPS.

In farming, a proper rotation of crops forms one of the best features of good management. So it does in gardening; but in the latter it cannot be so effectually followed out as in the former, for these obvious reasons: A garden is smaller than a farm; the articles cultivated in it are more numerous, and also more nearly related in kind, than those cultivated in the farm. A complete rotation can only be followed through, and full justice done to the land, when the crops that are to form the rotation are of a nature quite different, and when the manner of culture is distinct. Under certain crops, land is exhausted, and under others, strength may be restored to it. But in all cases, under good management, land must be fed. It must not be laid down to rest without having had, as one might say, its supper. The practice of not manuring land, but managing by what are termed *resting crops*, has been found fallacious, and is now justly exploded.

Market-gardeners, who are generally good managers, and must of necessity make the most of their ground, in order to maintain their families, and be able to pay high rents, have found out the utility of resting their land, and of following a regular rotation in cropping it, at least in the culture of the principal articles, and as far as the nature of the thing will admit. The best managers sow out a portion of their ground every season in grass, clover, or barley, which is used as green food for their horses and cows. Very generally the barley is sown along with the clover, merely to nurse and shade it, being cut down and not allowed to ripen. The clover is sometimes dug up after the first season, if land for market crops be scarce; but more generally it is allowed to lie a second year. By good managers, the ground is never sown down *in a hungry state*.

Land that has been under esculent crops for many years together, and is, perhaps, glutted with manure, may be *cleansed*, as it is termed, by a scourging crop of oats, wheat, or rye, which, if thought necessary, may be repeated. If trenched to its full depth afterwards, it will again be fit for the production of culinary crops in great perfection.

By *quartering out* currants, gooseberries, and raspberries, instead of growing them in single lines, particularly if these be properly managed, an opportunity of changing crops might further be afforded; as these should not stand longer than sever or eight years togethr, but the plantations should be renewed, as hinted at in the Fruit Garden, Sect. VI.

Strawberry plantations, under proper management, should be renewed every four or five years; and thus likewise might an opportunity of changing crops be afforded. Also, by the renewal of artichoke and asparagus plantations, which should be done every seven or eight years. In managing all the abovenamed articles *on a large scale*, new plantations should be made every year, to a certain extent, which would throw a certain proportion of ground regularly into the rotation.

In the culture of esculents, even on a small scale, a sort of rotation, though not very complete, might be aimed at, and would be very considerably furthered by classing certain vegetables; as the Brassica or Cabbage kinds; the Luguminous or Pea kinds; the Tuberous or Carrot-rooted kinds; the Bulbous or Onion kinds; and the lighter crops, as Sallads and Herbs.

But in all cases a studied rotation is advisable, and so as that no crop of the same class may immediately follow another. To facilitate this measure, the kitchen ground should be divided into many quarters or portions, and a journal or note-book should be kept, with a reference to their numbers. In this journal, whatever relates to their cropping, manuring, trenching, or fallowing, should be recorded. As a specimen, which may be altered or improved, according to existing circumstances, I shall here give an extract from my own journal formerly kept; which, as a sketch, may be useful, and, as a hint, may be followed up more freely.

1793. Subtrenched after asparagus, for carrot, without manure. Winter fallowed.
1794. Early cauliflower, with a moderate dunging, 2d March. Yellow turnip, with a compost dressing, 20th July.
1795. Onions, without manure, 5th February. Cabbage, with a light dunging, 5th October.
1796. Charlton peas, for a late crop, without manure, 10th June. Trenched three spit deep in December. Winter fallowed.
1797. Potatoes, with a moderate dunging, 20th March. German greens, without manure, 10th September; intended for leeks next June.

Lime in Planting Trees.—An English paper says that a large plantation of trees, within the last few years has been formed without the loss of a single tree, and this has been achieved by a simple process; it is merely putting a small quantity of lime in the hole with the plant. About four bushels of lime will suffice for an acre. It must be thoroughly mixed and incorporated with the mould before the plant is inserted. The effect of lime is to push on the growth of the plant in the first precarious state; new fibres begin to form and ramify from the tap-root, and not only is the safety insured, but its growth is advanced in double ratio. There existed, at first, an apprehension that liming the plant would force it on prematurely, but this apprehension is proved to have been groundless.

Beat this who can.—Mr. James Wallace, of Decatur county, (Indiana,) has raised from a single grain of corn, at twice planting, the astonishing amount of 38 bushels. The growth of the first year was a volunteer stalk, which was carefully cultivated. It produced nine small ears, two on the main stalk, the remainder on seven suckers, on which there were 3,680 grains. This product was planted and well cultivated, producing as above stated, 38 bushels.

Natural Curiosities.—The Boston Society of Natural History have recently received, through the politeness of D. S. McCauley, Esq., U. S. Consul at Tripoli, two rare varieties of African sheep. Three of these animals, a ram, ewe and lamb, covered with close, thick wool, are fine specimens of the four-horned variety from Benzari, in the Tripoli regency. They are also distinguished by the great breadth of the tail, which occasionally attains the weight of 15 pounds, resembling marrow in its substance,

and esteemed a great delicacy by epicures. The fourth specimen, a ram of the Fezzan variety, is clothed with hair, which forms a mane upon the neck and shoulders, and attains a length of several inches on the dewlap. In the hair, as well as long and slender legs, this animal nearly approaches the goat; while the projecting nose and recurved horns, eminently distinguishes this variety.

HOUSEWIFE'S DEPARTMENT.

Education of American Women.

There are few things on which the well being of society so much depends, which is so much neglected and mismanaged, as the *physical and intellectual education of females in this country.*

On hearing that a grand niece of Corneille was living in great indigence in Paris, Voltaire said, "it becomes an old follower of the great Corneille to endeavor to be useful to the descendant of his general," and he accordingly adopted her as a member of his family, and with benevolent anxiety superintended her education; as to the plan of which he wrote to one of his correspondents—"I do not wish to make her learned, but desire that she should learn *how to conduct the affairs of life and be happy.*" It would be a great improvement on the system usually pursued, if this rule were adopted in the education of American women of whatever class or condition. The fundamental error of the course usually followed is, that it is calculated to give a smattering of *too many things at once*, and ends in making superficial scholars, and captivating Belles, rather than women of useful knowledge and sound judgment; qualified to perform the arduous duties, and fortified to sustain the vicissitudes of life, and especially of conjugal life.

Look at the programme of instruction put forth by most of our fashionable and very expensive boarding schools for young ladies, and we might readily conclude, that with ordinary capacity to learn, many of the pupils could not fail to shine as brilliant luminaries in the world of science. That not a few of them would unite the profoundness of Newton with the wit of Voltaire—the heroism of Madame Roland with the genius of Madame de Stael. Enter one of these academies and you will see little girls eight and ten and twelve years old, reciting lessons in Geography, Astronomy, Chemistry, History, Music, French, besides Mineralogy, stone-ology, bird-ology, insect-ology, star-ology, heathen god-ology, and heaven knows how many more *ologies*, and sometimes Latin and Greek, all at the same time, and all of which demand, to study them with profit, a degree of intellectual cultivation and advancement belonging to a much later period of life, and only to be acquired by previous skilful preparation; and most of them when acquired of no practical utility to women, in the actual state and condition of social life in this country.

We esteem, too, as a mischievous practice, that of sending our children, to be confined in school, and *made* to learn at *too early an age;* thereby exciting a disgust for books, the very sight of which is attended with painful associations for years afterwards. This coercion often extinguishes that curiosity and thirst for knowledge which is implanted in our very nature, and which if left alone for a few years would grow of itself, requiring only to be well directed. Our system tasks the youthful and unstored mind simultaneously, with numerous subjects beyond its strength of comprehension, and the whole scheme proves abortive. Thus the most promising youths are too often sacrificed by being prematurely and unskilfully broken in and worked, as surely as you break down a colt of the highest form and the best mettle, by putting upon him the weight of an *aged horse!*

Of what avail for any useful end, that little girls can tell with exact chronological accuracy the time when a certain war broke out, when the Edict of Nantz was issued, when Cæsar was slain, or Cromwell usurped the Government of England, if when these mere facts are stored up in the mind it has not strength enough to reason and form its own conclusions as to the spirit of these transactions, the character of the principal actors, and the consequences that grew out of the events recorded? When in other words the mind of the pupil is too young to analyze and resolve these events in a manner to gain from them a better knowledge of human nature. Can mere children at the age, when they are usually instructed in history, be expected so to compare the testimony of contemporaneous and contradictory annalists, as to make a near approach to the truth, and draw conclusions applicable to our own times and to useful purposes in real life? As in eating and drinking and travelling and office-hunting, so in the instruction of both sexes, we push on with too much haste—too much on the high pressure system. Utilitarians in all things more than in our system of education—In that we go too much for the ornamental, too little for the useful. If too early confinement in school, and too little exercise afterwards, produces with our young women physical dyspepsia, so too early, and indiscriminate stuffing of the mind brings on intellectual indigestion and feebleness.

Were it practicable, and we see not why it should not be so, to a great extent, it should be an object of constant solicitude with parents and instructors so to influence the natural temper of a daughter, as to impart to it the greatest degree of cheerfulness, and readiness to submit and accommodate themselves to the various ills that "flesh is heir to." That a contented disposition may be a matter of acquirement, we have the authority of a great Apostle—"I have *learned*," said St. Paul, "in whatever state I am, therewith to be content"—and may we not believe of the virtue of cheerfulness, on which happiness so much depends, what Seneca says of virtue in general—"*Nature* giveth not virtue, it is an *art* to become good."

We must not forget however, that to prepare the mind of a woman to meet with fortitude the reverses to which too many are exposed, we must invoke and depend upon, the more potent aid and kindlier influence of *religion*, to which the female heart is so much more susceptible than that of our sex. It is not to be denied, that religion and civil institutions exercise much sway over the natural temperament, hence we see whole nations marked by the strongest characteristic differences. These have been delineated with inimitable accuracy by Goldsmith. Of all these national portraits, we confess most to admire that of La Belle France. All other things the same, who would not give preference to that

"Gay sprightly land of mirth and social ease"?

We have said that in no country more than ours does it behove those who have any agency in the formation of female character, to endeavor to imbue it with cheerfulness, and philosophy to bear up under adverse changes of fortune; for though the freedom of our institutions, and the safety valve of the ballot box saves us from sanguinary civil broils, and bloody revolutions that have stained the annals of all arbitrary governments, yet the uncertain issues of commercial pursuits, and the frequent partitions of landed property under our laws, bring about frequent reverses of condition, overwhelming the children of opulence to-day, with poverty and ruin tomorrow; and ah! mothers! reflect for your daughters, how much the sting of adversity is sharpened, when, as too often happens, the whole scope of her education has been to make her a *fine Lady*, skilled only in the fashions of dress, the graces of the mazy dance, and all the various arts and affectations of coquetry—when all that has been done to fashion her manners, and to stimulate her ambition, has been predicated on the notion that her chief object in life is to *get a husband!* without leading her to contemplate the probability that the time will come when the happiness of her family, and her own honor and comfort, may demand the exercise of those useful acquirements, and that stern resignation which rarely belong to superficial minds! Let your daughter then be taught every day to look forward to a state of things when they may have to care for the happiness of two at least instead of one, and when the subsistense of her offspring may in some measure depend on her own practical knowledge of the use of the scissors and the needle, and of all the arts and manufactures that appertain to thrifty and good housewifery.

Need we enforce the virtue of domestic economy and a practical knowledge of the arts of house-keeping by any higher example than that of the wife of our own illustrious Washington? She "was an excellent economist and manager, and had so fine a tact, and so good a method of managing her establishment, that she took from her husband, says her biographer, much of the care of entertaining his numerous guests, the number of whom kept constantly increasing as long as he lived." In the year 1785 the General himself wrote to a friend inquiring for a housekeeper, whom he says he wishes to relieve Mrs. Washington "*from the drudgery of ordering and seeing the table properly covered, and things economically used.*"

We may conclude these hasty remarks, by recommending to our fair readers the following curious account of a meeting at the Boston Market House between the celebrated *Talleyrand* and a *French Countess.* See what a picture of fine temper and resolution under the most awful reverse of circumstances!

Misfortune and Exile Ennobled.

By Madame Junot, Duchess D'Abrantes.

In 1793, M. de Talleyrand was in Boston. One day whilst crossing the market-place, he was compelled to stop, by a long row of wagons all loaded with vegetables. The wily courtier, generally so dead to emotion, could but look with a kind of pleasure at these wagoners, who, by the by, were young and pretty country women. Suddenly the vehicle came to a stand, and the eyes of Talleyrand chanced to rest upon one of the young women who appeared more loveley than the others. An exclamation escaped from his lips; it attracted the attention of the lovely one, whose country dress and large hat bespoke daily visits to the market, and, as she beheld the astonished Talleyrand, whom she recognised immediately, burst out laughing. "What! is it you?" exclaimed she. "Yes, indeed, it is I. But you, what are you doing here?" "I," said the young woman, "I am waiting for my turn to pass on. I am going to sell my greens and vegetables at the market." At this moment the wagons began to move along; she of the straw hat applied the whip to her horse, told M. de Talleyrand the name of the village where she was living, requested him earnestly to come and see her, and disappeared, leaving him as rivetted on the spot by this strange apparition. Who was this young market woman? Madame la Comtesse de la Tour-du-Pin, (Mademoiselle de Dillou.*) the most elegant among the ladies of the Court of Louis the Sixteenth, King of France, and whose moral and intellectual worth had shone with so dazzling a lustre in the society of her numerous friends and admirers.

At the time when the French nobility emigrated, she was lively, endowed with the most remarkable talents, and like all the ladies who held a rank at the Court, had only had time to attend to such duties as belonged to her high, fashionable, and country life. Let any one fancy the sufferings and agony of the woman, born in the lap of wealth, and who had breathed nothing but perfume under the gilded ceiling of the Royal Palace of Versailles, when, all at once, she found herself surrounded with blood and massacres, and saw every danger besetting her young and beloved husband, and her infant child. They succeeded in flying from France. It was their good fortune to escape from the bloody land where Robespierre and his associates were busy at the work of death. Alas! in those times of terror the poor children themselves abandoned with joy the paternal roof, for no hiding place was secure against the vigilant eye of those monsters who thirsted for innocent blood. The fugitives landed in America, and first went to Boston, where they found a retreat.

* She returned to France under the Consulate; her husband was Prefect of a Department.

But what a change for the young, pretty, and fashionable lady, spoiled from infancy by loud and continued praises of her beauty and talents.* Monsieur de la Tour-du-Pin was extravagantly fond of his wife. At the Court of France, he had seen her, with the proud eye of a husband, the object of admiration; indeed, her conduct had always been virtuous and exemplary; but now, in a foreign land among unsophisticated republicans, (1793,) what was the use of courtly refinements? A thorough knowledge of "La Bonne Fermiere" of Parmentier seemed to him far more preferable to a rondeau of Clementi† or La Coquett of Herman.‡

Happy as he was in seeing her escape from all the peril he had dreaded on her own account, still he could not but deplore the future lot of the wife of his bosom. However, with the foresight of a good father and kind husband, he nerved himself against despair, and exerted himself to render their condition less miserable than that of many emigrants who were starving when the little money they had brought over with them was exhausted. Not a word of English did he know, but his wife spoke it fluently and admirably well.

They boarded at Mrs. Muller's, a good-natured, notable woman, who on every occasion evinced the greatest respect and admiration for her fair boarder; yet M. de la Tour-du-Pin was in constant dread lest the conversation of that good, plain, and well-meaning woman might be the cause of of great ennui to his lady. What a contrast with the society of such gentlemen as M. de Talleyrand and the high minded and polished nobility of France! Whenever he was thinking of his sad transition, (particularly when absent from his wife, and tilling the garden of the cottage which they were going to inhabit,) he felt such pangs and heart throbbings as to make him apprehensive, on his return to Mrs. Muller's, to meet the looks of his beloved wife, whom he expected to see bathed in tears. Meanwhile, his good hostess would give him a hearty shake of the hand, and repeat to him "Happy husband! happy husband!"

At last came the day when the fugitive family left the boarding-house of Mrs. Muller to go and inhabit their little cottage, where they were to be at least exempted from want, with an only servant, a negro, a kind of Jack-at-all-trades, viz, gardener, footman and cook. The last function M. de la Tour-du-Pin dreaded most of all to see him undertake. It was almost dinner time. The poor emigrant went into his garden to gather some fruits, and tarried as long as possible. On his return home his wife was absent; looking for her, he entered the kitchen and saw a young country woman, who, with her back to the door, was kneading the dough; her arms, of snowy whiteness, were bare to the elbows. M. de la Tour-du-Pin started; the young woman turned round. It was his beloved wife, who had exchanged her muslins and silk for a country dress, not as for a fancy ball, but to play the part of a real farmer's wife.

At the sight of her husband her cheeks crimsoned and she joined her hands in a supplicating manner. "Oh! my love," said she, "do not laugh at me, I am as expert as Mrs. Muller." Too full of emotion to speak, he clasped her to his bosom and kissed her fervently. From his inquiries he learned that, when he had thought her given up to despair, she had employed her time more usefully for their future happiness. She had taken lessons from Mrs. Muller and her servants; and, after six months, had become skilful in the culinary art, a thorough housekeeper, discovering her angelic nature and admirable fortitude.

"Dearest," said she, "if you knew how easy it is. We, in a moment, understand what would cost a country woman one or two years. Now we shall be happy; you will no longer be afraid of ennui for me, nor I of your doubt about my abilities, of which I will give you many proofs," said she, looking at him with a bewitching smile. "Come, come, you promised us a salad, and I am going to bake to-morrow. To-day the bread of the town will do; but oh! henceforth leave it to me." From that moment Madame de la Tour-du-Pin kept her word; moreover, she insisted on going herself to Boston to sell her vegetables and cream cheese. It was on such an errand to town that M. de Talleyrand met her. The day after, he went to pay her a visit, and met her in the poultry-yard, surrounded by a host of fowls, hungry chickens and hens. Truly might have been said to her,

From thee unfledg'd birds receive their food,
And all that live know well that thou art good.

She was all that she promised to be. Besides, her health was so much improved that she seemed less fatigued with the house work than if she had attended the balls of a winter. Her beauty, which had been remarkable in the gorgeous palace of Versailles, was dazzling in her cottage in the new world. M. de Talleyrand told her so. "Indeed!" replied she, with naivete; "Indeed do you think so! I am delighted to hear it. A woman is always and every where proud of her personal attractions." At that moment the black servant bolted into the drawing-room holding his jacket in his hand with a long rent in the back. "Missus, him jacket tore; please mend him." She immediately took a needle and repaired Gullah's jacket, and continued the conversation with charming simplicity.

This little adventure left a deep impression on the mind of M. de Talleyrand, who used to relate it with that tone of voice peculiar to his narrations.

*She was an excellent performer, and played admirably on the piano.

† A celebrated composer.

‡ Professor of Music to the Queen.

BALTIMORE MARKET.

Trade of Baltimore.—Lyford's Commercial Journal of Saturday, contains some interesting statistics of the trade and business of Baltimore. In the table showing the Tobacco trade of Maryland, we find that 377,727 hhds. of Tobacco of the growth of this State, have been inspected in Baltimore from the year 1825 to 1840, inclusive; these Tobaccos have been sold by the planters at various prices, according to the quality of the article, ranging from fifty to one hundred dollars per hhd.; forming a total aggregate, within the period of fifteen years, of from 18 to 37,000,000 dollars! or averaging from between two, to over two millions of dollars a year!

It is remarked, in reference to the exports of Tobacco from the United States to Europe, that the number of hhds. in 1840, exceeded the number exported in 1839, by nearly 40,000; as large as the stocks on hand appear at the close, yet the *average* in Europe was less, by upwards of 13,000 hhds., than for ten preceding years. The total exports of Tobacco for the quarter ending on the 31st of December, was 13,055 hhds., valued at $632,020 The exports of flour, for the same time, was 90,575 bbls., valued at $461,310. The export of wheat 38,134 bushels, valued at $41,121. The value of the export of provisions, including pork, lard, bacon, butter, cheese, fish, corn meal, &c. &c., $1.497,760.

Prices at Centre Market, Saturday, Feb. 13—Butter, print, 25a37½ cents; do roll, 16a25; Eggs, per dozen, 18a20; Turkeys, $1a1,75; Geese, 62½a87½; Chickens, pair, 50a62½; Ducks, 50a75 per pair; Pig, quarter, 37½a44; Shoat, do 62½a$1; Roasters, 50a75; Veal, quarter, 87½a1,12½; Mutton, qr., 62½a75; Lamb, qr 50a62½; Apples, per peck, 18¾a37½; do. dried, 37½; Potatoes, 16a18¾; Turnips, 12½; Onions, 16; Beets, quarter peck, 6¼; Parsnips, per peck, 18¾; Carrots, per bunch, 6; Cellery, do 6¼a10, Cabbages, head, 3a8. Butchers' Meats—Beef, prime pieces, 9a10c; coarse, 4a6; corned 7a8; dried, 12½; smoked tongues, each, 62½—Fork, fresh, 8a9, corned, 8a9; Hams, 10a12½; Joles, 6; Veal, 9a12½; Mutton, 6a8; Sausages, 10; Lard, 8a9. Corn Meal, 100 lbs. $1,25; Flour, do $2,75; Buckwheat, do $3. Fuel—Oak Wood, per cord, $4 50a5—Pine do $4—Anthracite Coal, per ton of 2240 lbs., broken and screened, $6,50a10.

Cattle.—The offerings of Beef Cattle at the drove yard, during the week have amounted to about 200 head, all of which were in the market on Monday. About 175 have been taken by the city butchers at prices ranging from $6 for good to $7,50 per 100 lbs. for prime quality. There has been a fair supply of Live Hogs at market during the week, and sales have been made at $5,60 to $6 per 100 lbs small lots principally at the latter price.

Cotton.—There has not been much doing this week. We note a sale of 90 bales Florida at 11¼ cts. and 100 bales New Orleans at 11 7-8 cts.

Flaxseed.—We note sales of 400 bushels from store at $1,-15. The article has improved however, and $1,20 has been offered and refused for a large parcel. The wagon price is $1 per bushel.

Molasses.—We note sales of 20 tierces and 100 bbls. New Orleans at 28 cts. At auction to-day 50 hhds. New Orleans were sold at 26a26¼ cts.

Rice.—Sales his week at $3,37 a $3,50 per 100 lbs.

Sugars.—At auction to-day, 70 hhds new crop Porto Rico, cargo of schr. Shakespeare, were offered, but only 5 hhds., quality only middling were sold at $7,50.

Tobaacco.—There is a fair demand for Maryland Tobacco of middling to inferior quality, say from 6,50 down, and sales to a considerable extent could readily be effected if the article was in market. In the absence of transactions, we quote nominally as before, inferior and common $4 a $5,50; middling to good $5,50 a 7,50; good $8 a $8 50; and fine $9 a $13. There is not much demand for Ohio, and the stock is very small. Occasionally limited lots answering particular purposes are sold within the range of quotations, which we continue, viz inferior and common at $4a4,50; middling $5; good $5,50a$6,50; fine red and wrappery $8a12; prime yellow at $7,50a10, and extra wrappery $15a17. We note a sale this week of very prime yellow at $11 round. The inspections of the week comprise 3 hhds. Maryland; 14 hhds. Ohio; and 10 hhds. Virginia—total 27 hhds.

Flour.—The market for Howard Street is rather dull, and the store price steady at $4.50 for good common brands. Sales are effected with difficulty at that rate, however, and principally on time with interest added. We note sales of several hundred barrels to-day at $4.50 on time, with interest. The receipt price continues at $4.37½ to $4,44.

City Mills Flour is held at $4,62½ for standard, and $4,87½ for extra, without demand. The stock is quite small.

Grain.—There is no change in the price of Wheat—we quote nominally at 90 cts. for reds. The last sale of white Corn was at 43 cts. There is none now afloat. We quote Oats at 30 a 31 cts. Holders of Cloverseed ask $5,12½a$5,25 per bushel, for strictly prime, but we hear of no sales over $5,12.

Provisions.—The operation in provisions to-day have been very small, and the prices we quote are those at which the last operations took place and are the asking store rates now for the various articles, viz. new Mess Pork at $15; new Mess Beef at $12,50; No. 1 at $10,50 and Prime at $8 50 a $9. Baltimore cured Hams Bacon at 10 to 10½ cents; Sides at 8½ cents; Western assorted at 7½ cents; Hams 9 to 10 cents; Sides at 7½ cents and Frederick County assorted at 7¾ cents. Western No. 1 Lard in kegs is held at 8 cents and the last operations, in barrels of the same description were at 6½ to 7½ cents according to quality. We quote the same description now at 7 cents. Some holders of very superior lots are asking 7½ cents. In butter there is nothing doing, and we quote the nominal price of Glades, No. 1 at 18 to 21 cents; No. 2 at 14 to 18 cents, and No. 3 at 8 to 12 cts. Western is held at 7 to 8½ cents as in quality and very dull.

At Winchester, Va., on Friday, Flour was $3 90; Bacon 6½c; Wheat in fair demand at 75c; Corn dull at 45c and Oats 30 cents.

At Richmond, on Friday, flour was quoted from stores, at $4½; wheat 105a110c. The inspections of tobacco continued, say 80a1000 hhds. per day,—demand for useful qualities steady. We renew our quotations of this day week—Lugs $4½ a4½ and $5—common Leaf $5a6—middling $6½a7½—good and fine $8a10½. The Whig says—The Banks are paying cash for their notes when presented, and are determinened to sustain themselves if possible. But little specie has been called for since Monday, and by the aid of the small notes it is to be hoped that the banks may continue specie payments.

At Wilmington, N. C., in the week ending Tuesday, there were reported sales of 4000 bbls. turpentine at $2,20 a 2.28, closing at the latter rate. Tar firm at $1,25. Considerable lumber received by the late rise. Flooring went off at 8½ cash—Wide boards somewhat dull—Scantling sold at $4½ the last of last week—Demand for shingles good—Sales of fair quality at $2,62½—A sale of R O hhd Staves at 1½, but some in market hard to be disposed of.

At Philadelphia, on Friday.—Cotton—The recent favorable advices from England have caused an advance in the article fully equal to one-half cent per lb., with very light stocks in market; sales of Mississippi at 12c per lb. Flour and Meal—3a4000 bbls have been sold for exportation on the Delaware, at $4 75 per bbl. In Broad street it is held at $4 62a4 75; choice brands in small lots sell at a trifle above these rates. Rye Flour is steady at $3. In Corn Meal there is no change but with little demand. Grain—Very little has been done lately in Grain of any description; the last sale of Oats was at 27 cents afloat; yellow Corn 46c; white do 43c; Penn. Wheat is worth 93a95c, and Southern 85a90c per bushel. Lead—Holders generally are firm at 5c per lb. Molasses—Continue dull; sales have been made of good Trinidad on the wharf at 25c, and Porto Rico 18a20c per gal. A small sale at auction at 16½c. Naval Stores—North County Turpentine, old, $2 40 per bbl; 100 bbls Tar at 2. We have no important change to notice; Spirits Turpentine is scarce. Cleared this week 100 bbls for Gibraltar. Plaster—Last sales made afloat at $2.50 per ton. Provisions—Are dull, and on the decline; 1000 kegs Western Lard sold at 7a7½c per lb.; Pennsylvania Butter, in kegs, 8c. Rice—is selling at $3 50 per 100 lbs. Seeds—Cloverseed has improved since last week, and is in demand for the New York market at 4 87½a $5 per bushel. Flaxseed has advanced to $1 35 per bushel. Sugars—are steady; sales of 140 hhds Attakapas at 6¾c per lb; 250 boxes brown Cubas, at a price not made public. Tobacco—Sales of about 150 hhds Kentucky, for export, chiefly from second hands, at full prices. Cleared for Bremen and Africa, 187 hhds. Wool—Moderate sales continue to be made by the dealers to manufacturers, at previous prices or foreign and domestic. Cattle Market—Beef Cattle—540 in market—106 from Virginia; sales from 6½ to 8c.

At New York, Feb. 12.—Cotton is quiet again; the sales of the morning being only 200 bales. There have been sold during the week 12,000 bbls. Genesee Flour, for England, beginning at $4,81 and closing at $4,75. Nothing new on the Corn Exchange.

At Augusta, February 11—Cotton.—During the past week there has been a very active demand for the staple, and a considerable amount of business has been done at an advance, generally, of 3-8 a ½c per lb. on the prices current last week.

American Farmer,

AND SPIRIT OF THE AGRICULTURAL JOURNALS OF THE DAY.

"O Fortunatos nimium sua si bona norint
"Agricolas." . . . . *Virg.*

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PRIZE ESSAY.

[To the following was awarded the prize for the second best Essay on the subject on which it treats, offered by the publisher of the *American Farmer*, viz: the five vols. of the "*Farmer & Gardener*," and vols. 1 & 2 *American Farmer*, (new series,) the subscription price of which is $25.]

ESSAY

On the Renovation of the Soil, Deteriorated by Improvident Cultivation.

The multiform operations of nature in her great laboratory, the universe, has claimed the attention of thinking men in all ages and all countries. They have formed the basis of the researches of the philosopher—the fruitful theme of the poet's imagination, and the ground-work of vast improvements in the mechanic arts.

But to no class of society are these operations more important, either in intellectual or pecuniary interest, than to the agricultural community. Indeed, their importance to this class claims the more special attention of the farmer, from the consideration, that upon success in his vocation all others immediately or mediately depend. But for him the mechanic could not be sustained—the manufacturer's operations must cease—the pursuits of the merchant fail.

The attention of my agricultural brethren to the great operations of nature immediately connected with our pursuits, will be materially assisted by adhering to the analytical subdivision of its substances into the animal, the vegetable and the mineral kingdoms; and to their analogical proximity, so far as their organization is similar. The organization of the animal and vegetable kingdoms so far coincide, that they each originate from progenitors of its own species—they are both sustained by the mediate or immediate products of the earth—they both increase by that sustenance to the full measure of their natural size—they are both subject to disease from obstruction in the circulation of their fluids, either from excess of food or parsimony in its administration, or disease may in both be produced by external violence causing wounds—they are both susceptible of being cured of these obstructions, the circulation restored, and health produced by medical treatment—they both gradually decay after the object of their organization is fulfilled, and finally they both return, at death, to that earth which was originally their parent, which nurtured them to maturity, which administered to their diseases, and which, at last, receives them as integral parts of its own substance.

From this similarity between the animal and vegetable kingdoms, the observing farmer, in whom are blended the character and functions of both nurse and physician, must feel the responsibilty of his station, when he reflects that "life's staff" is to be furnished by him, and that absolute famine and starvation must be the inevitable consequence of neglecting his ward. But to cheer him in the discharge of his alarmingly responsible duties to society by fostering that ward, we offer to the farmer the consolation that nature bountifully and gratuitously *furnishes all its food*, and but for that improvident culture which has sterilized his lands, would administer it with that tenderness and skill which would relieve him of the burden of his station by keeping the plants in that healthful freedom of circulation required for their maturity. The name of this great boon of heaven, stripped of all verbiage, is *water*, simple water: the only *pabulum* or food of vegetables.* Start not my learned friends at laying aside for a moment the specious terms *geine*, *hydrogen*, *oxygen*, &c., the more convenient term water includes them all; and while you are taxing your ingenuity and ransacking the several kingdoms of matter in search of food for your plants, nature is steadily but noiselessly furnishing an ample supply. Its recipient is the ground to which you commit your seed, and which ought to be of that sponge-like tenuity calculated to receive, retain and administer that food to your plants in just proportion. In a state of nature, land generally possesses that happy state of tenuity and porosity requisite to promote the most healthful vegetation, but by a series of mal-culture our lands have become diseased until their pores are closed or clogged to that degree which prevents the free use, digestion and nutritive effect of the food which nature supplies, and sickly, stinted and valueless vegetation is the result.

To obtain a healthful stock of plants, we must restore the soil to that *tenuity, porosity and activity* which will insure luxuriance. The *modus operandi* of effecting this great desideratum will of course vary in different soils. In some, too great tenacity prevails, and the food of the plant is administered so copiously as to produce surfeit: this is prevalent in clayey soils. In others, the soil is so porous as to leech away the food and cause starvation of the plants: this occurs mostly in sandy soils. Both these defects are best remedied by the application of *lime*. Clay soils are opened by the changes which are constantly taking place in the lime from its tendency to slack, dissolve and descend; while sandy soils are rendered more tenacious by it, from its affinity to the sand, as in the act of making mortar. Lime, therefore, where attainable, is useful to lands in general, and *should be applied if possible* in quantities of from thirty to fifty bushels per acre, in proportion as there is little or much vegetable matter in, or on the soil. This is the first step towards improving the soil. After lime has been applied, or where it is unattainable, the next step in the progress of improvement is to obtain a coat of vegetable matter to be incorporated with the soil; the grand object of which is to open its pores, and by its decomposition, preserve activity. This is the great key-stone in the arch of future improvement; for when we can return to the soil a coat of vegetable matter produced by it, improvement is fairly commenced, not in speculative theory only, but in sober and substantial reality.

Perhaps the best plant to be cultivated for this purpose, because most easy of acquisition, and with whose habits we are most universally familiar, is *clover*. The great size of its roots is well calculated to open, and keep open the pores of the ground, even before its body has been given to the earth for that purpose; and if on its broad horizontal leaves gypsum be applied, whose affinity to moisture is well known, it attracts and retains additional pabulum from the circumambient atmosphere to satiate the *gourmond* appetite of this invaluable friend of the soil, which it enriches even before it has been sacrificed to it; but when its whole body has been entombed by the plough at that stage of its growth in which it has acquired its greatest volume, the second grand step to improvement will have been effected.

If it be asked how are we to obtain the desired coat of clover, the answer is, that there is very little of our land in which it will not vegetate and acquire the first stage of its growth. If plaster be then applied, its growth will be accelerated and its volume materially increased; but to produce a more liberal burden of it, we must, if possible, on sowing, give the ground a slight dressing of marl, ashes, common salt or vegetable oil, as linseed cake, the cheese from which helianthus oil has been expressed, or the refuse of palma christi after the extraction of castor oil, &c.: these last will almost work miracles in producing a liberal coat of vegetation, and the produce of one acre of good land will yield the last mentioned in sufficient quantity to manure five, if not ten acres in proper proportion to insure luxuriant vegetation.

Not only clover is useful in its return to the soil to promote its porous and active qualities, but oats, Indian corn sown broadcast, and buckwheat. Against this last there exists in my own immediate neighborhood a strong unfounded prejudice based upon the groundless principle, that rapid growth exhausts the productive qualities of the soil, whereas the very reverse is the case, if after its growth it be returned to the soil. Indeed, improvement may be commenced upon soil of less productive grade with buckwheat than with clover, as the former will produce more vegetable matter with less help and in much shorter time than the latter, though its beneficial effects will be proportionably less permanent.

When we shall have incorported a coat of vegetable matter with our soil, the remaining step is to *secure* the advantage we have gained; and by a judicious rotation of crops not only prevent the relapse of disease to our lands, but enable them to be gaining strength, activity and vigour to embrace our annual operations upon them as expressions of our parental regard, rather than shrink from our touch as from the infliction of undeserved chastisement, and fearing we will pursue it to extermination. If our clover lay have been turned in in the spring for corn, let the inverted sod remain undisturbed, but cultivate as finely and as frequently as you please on its surface, and as soon as the corn is ripe remove it and sow the ground with wheat or rye, according to the quality of the land or your inclination or wants, and with a shallow furrow plough it in early, and immediately sow again with your land's best friend, clover, and harrow it in, that their roots may become well established in the ground, and a good coat of vegetation may have been produced to cover and protect them from the effects of the frosts of winter, and rest easy respecting the treatment of your land for one year, taking care not to feed your stubble ground at all, but let its aftermath remain for its protection the following winter. If our clover be turned in in midsummer preparatory for a crop of wheat, neglect not by any means to sow it with clover as before, and, as before, avoid feeding your stubble ground; for whatever crop is to succeed will be materially benefitted by this growth turned in, and the land meanwhile will have been protected and enriched by it; more especially if after taking off the crop you dust your clover with plaster.

Thus may you take from your land every year a crop of grass or grain, and by extending a little the depth of plowing at each successive time, your soil will increase in depth and strength, and your crops increase in amount and value until, like the barren estates of Flanders, your land is not only restored to its primitive productiveness, but pushed to a point of fertility far exceeding it; and like those now improved estates each acre rendered capa-

* Should sufficient interest be excited, or curiosity upon the subject awakened, the writer would be happy to sustain this position in a subsequent communication, by detailing experiments made, which prove not only that plants are brought to maturity by water only, but that upon chymical analization their constituents and proportions are precisely as usual.